

INTRODUCTION

MEMBERS OF THE JURY:

You have heard the evidence in this case. The parties were given limited time in which to present their cases. Each side received the same amount of time to present evidence.

I will now instruct you on the law that you must apply. Each of you are going to have your own personal copy of these final instructions that I'm about to give you orally. You will have these in written form for your review in the jury room when you retire to deliberate. Accordingly, there is no need for you to take written notes on these final jury instructions unless you want to do so.

It is your duty to follow the law as I give it to you. You should not single out any instruction as alone stating the law, but you should consider my instructions as a whole when you retire to deliberate. On the other hand, you the jury are the judges of the facts. Do not consider any statement that I have made in the course of trial or make in these instructions as an indication that I have any opinion about the facts of this case. After I instruct you, the attorneys will have an opportunity to make their closing arguments. Statements and arguments of the attorneys are not evidence and are not instructions on the law. They are intended only to assist the jury in understanding the evidence and the parties' contentions.

You will remember that at the beginning of this trial I gave you some general instructions and definitions. I will repeat them now to aid you in your deliberations.

I. GENERAL INSTRUCTIONS

A. Verdict Form

A verdict form has been prepared for you. You will take this form with you to the jury room and when you have reached a unanimous agreement as to your verdict, you will have your foreperson fill in, date it and sign the form. Answer the question on the verdict form from the facts

as you find them. Do not decide who you think should win and then answer the questions accordingly. Your answer and your verdict must be unanimous.

B. Burden of Proof

Facts must be proved by a required standard of evidence known as the burden of proof. In this case, there are two burdens of proof that will apply: (1) the preponderance of the evidence standard; and (2) the clear and convincing evidence standard.

1. Preponderance of the Evidence

When a party has the burden of proof on any claim or defense by a preponderance of the evidence, it means you must be persuaded by the evidence that the claim or affirmative defense is more likely true than not true.

You should base your decision on all of the evidence, regardless of which party presented it.

2. Clear and Convincing Evidence

When a party has the burden of proof on any claim or defense by clear and convincing evidence, that means the evidence must persuade you that it is highly probable that the facts are as that party contends. In other words, clear and convincing evidence means that the evidence produces in your mind a firm belief or conviction as to the matter at issue. The clear and convincing evidence standard requires greater proof than is necessary for the preponderance of the evidence standard.

Again, you should base your decision on all of the evidence, regardless of which party presented it.

C. Evidence in the Case

The evidence you are to consider includes:

1. the sworn testimony of any witness;

2. the exhibits which are received into evidence; and
3. any facts to which the lawyers stipulate (listed on pages 10–11).

The following are not evidence, and you must not consider them as evidence in deciding the facts of the case:

1. statements and arguments of the attorneys;
2. questions and objections of the attorneys;
3. testimony that I instruct you to disregard; and
4. anything you may see or hear when the Court is not in session even if what you see or hear is done or said by one of the parties or by one of the witnesses.

D. Consideration of the Evidence

While you should consider only the evidence in this case, you are permitted to draw such reasonable inferences from the testimony and exhibits as you feel are justified in light of common experience. In other words, you may make deductions and reach conclusions that reason and common sense lead you to draw from the facts that have been established by the testimony and evidence in the case.

The testimony of a single witness may be sufficient to prove any fact, even if a greater number of witnesses may have testified to the contrary, if after considering all the other evidence, you believe that single witness.

There are two types of evidence that you may consider in properly finding the truth as to the facts in the case. One is direct evidence—such as testimony of an eyewitness. The other is indirect or circumstantial evidence—the proof of a chain of circumstances that indicates the existence or nonexistence of certain other facts. As a general rule, the law makes no distinction between direct and circumstantial evidence but simply requires that you find the facts from all of the evidence, both direct and circumstantial, regardless of the burden of proof involved.

Do not let bias, prejudice, or sympathy play any part in your deliberations. A corporation and all other persons are equal before the law and must be treated as equals in a court of justice.

The Court has assigned numbers to the trial exhibits. You should not construe any significance to the exhibit numbers.

E. Demonstrative Exhibits

Certain exhibits shown to you are illustrations. We call these types of exhibits “demonstrative exhibits.” Demonstrative exhibits are a party’s description, picture, or model to describe something involved in this trial. If your recollection of the evidence differs from the exhibit, rely on your recollection. While demonstrative exhibits may have been helpful to you in determining the issues, the demonstrative exhibits of both parties are not evidence or proof of any facts. If they do not correctly reflect the evidence in this case, you should disregard these demonstrative exhibits and determine the facts from the underlying evidence. Demonstrative exhibits not admitted into evidence will not be available to you during your deliberations.

F. Credibility of Witnesses

You are the sole judges of the credibility or “believability” of each witness and the weight to be given to the witness’s testimony. An important part of your job will be making judgments about the testimony of the witnesses. You should decide whether you believe all or any part of what each person had to say, and how important that testimony was.

In weighing the testimony of the witnesses, you may consider the witness’s manner and demeanor on the witness stand, any feelings or interest in the case, or any prejudice or bias about the case, that he or she may have, and the consistency or inconsistency of his or her testimony considered in the light of the circumstances. Has the witness been contradicted by other credible evidence? Has he or she made statements at other times and places contrary to those made here

on the witness stand? You must give the testimony of each witness the credibility that you think it deserves.

Even though a witness may be a party to the action and therefore interested in its outcome, the testimony may be accepted if it is not contradicted by direct evidence or by any inference that may be drawn from the evidence, if you believe the testimony.

In making up your mind and reaching a verdict, do not make any decisions simply because there were more witnesses on one side than on the other. Do not reach a conclusion on a particular point just because there were more witnesses testifying for one side on that point.

G. Impeachment by Witnesses' Inconsistent Statements

In determining the weight to give to the testimony of a witness, you should ask yourself whether there was evidence tending to prove that the witness testified falsely about some important fact, or, whether there was evidence that at some other time the witness said or did something, or failed to say or do something that was different from the testimony he or she gave at the trial.

You should keep in mind, of course, that a simple mistake by a witness does not necessarily mean that the witness was not telling the truth as he or she remembers it, because people may forget some things or remember other things inaccurately. So, if a witness has made a misstatement, you need to consider whether that misstatement was an intentional falsehood or simply an innocent lapse of memory, and the significance of that may depend on whether it has to do with an important fact or with only an unimportant detail.

H. Expert Witnesses

When technical or other specialized knowledge may be helpful to the jury, a person who has special training or experience in that field—called an expert witness—is permitted to state his or her opinion on those matters. However, you are not required to accept that opinion. As with any other witness, it is up to you to decide whether to rely upon an expert's opinion.

I. Deposition Testimony

Certain testimony was presented to you through deposition. A deposition is the sworn, recorded answers to questions asked of a witness in advance of the trial. Under some circumstances, if witnesses cannot be present to testify from the witness stand, or the parties otherwise agree, those witnesses' testimony may be presented, under oath, in the form of depositions. Sometime before this trial, attorneys questioned these witnesses under oath. A court reporter was present and recorded the testimony. This deposition testimony is entitled to the same consideration and is to be judged by you as to credibility and weighed and otherwise considered by you insofar as possible in the same way as if the witnesses had been present and had testified from the witness stand in court.

J. Objections

It is the duty of the attorney on each side of a case to object when the other side offers testimony or other evidence that the attorney believes is not properly admissible.

Upon allowing testimony or other evidence to be introduced over the objection of an attorney, the Court does not, unless expressly stated, indicate any opinion as to the weight or effect of such evidence. As stated before, the jurors are the sole judges of the credibility of all witnesses and the weight and effect of all evidence.

When the Court has sustained an objection to a question addressed to a witness, the jury must disregard the question entirely and may draw no inference from the wording of it or speculate as to what the witness would have said if permitted to answer the question. If the objection is overruled, then you may treat the answer to that question just as you would treat the answer to any other question.

During the trial, I may not have let you hear the answers to some of the questions the lawyers asked. I also may have ruled that you could not see some of the exhibits the lawyers

wanted you to see. And sometimes I may have ordered you to disregard things that you saw or heard. You must completely ignore all of these things as I have instructed you to disregard or ignore. Do not speculate about what a witness might have said or what an exhibit might have shown. These things are not evidence, and you are bound by your oath not to let them influence your decision in any way.

At times during the trial it was necessary for the Court to talk with the lawyers here at the bench out of your hearing, or by calling a recess and talking to them when you were out of the courtroom. This happened because often during a trial, something comes up that does not involve the jury. You should not speculate on what was said during such discussions that took place outside of your presence.

K. Use of Notes Taken By Jury

Any notes that you have taken during this trial are only aids to memory. If your memory should differ from your notes, then you should rely on your memory and not on the notes. The notes are not evidence. A juror who has not taken notes should rely on his or her independent recollection of the evidence and should not be unduly influenced by the notes of other jurors. Notes are not entitled to any greater weight than the recollection or impression of each juror about the testimony.

II. SPECIFIC INSTRUCTIONS

At the beginning of trial, you were given some general information about patents and the patent system and a brief overview of the patent laws relevant to this case. I will now briefly review the contentions of the parties and give you more detailed instructions about the patent laws that specifically relate to this case.

A. Contentions of the Parties

Plaintiff in this case is SynQor, Incorporated, referred to as “Plaintiff” or “SynQor.” Defendant in this case is Vicor Corporation, referred to as “Defendant” or “Vicor.”

SynQor alleges that Vicor induces and contributes to the infringement of certain claims of two SynQor patents: United States Patent No. 7,072,190, which is often referred to as the ’190 Patent and United States No. 7,564,702, which is often referred to as the ’702 Patent. I will refer to these two patents together as the “SynQor patents,” the “asserted patents,” or the “patents-in-suit.”

SynQor specifically contends that Vicor induces and contributes to the infringement of claim 2 of the ’190 patent and claims 55 and 67 of the ’702 patent. I will refer to these claims together as the “asserted claims.” SynQor alleges that the asserted claims are infringed either literally or through the Doctrine of Equivalents.

SynQor alleges that Vicor induces and contributes to the infringement of the asserted claims of the SynQor patents by making, using, offering for sale, and/or selling in the United States unregulated bus converters that its customers use in the claimed invention. More specifically, SynQor alleges that Vicor induces and contributes to infringement of the asserted claims of the SynQor patents by certain of its customers. SynQor alleges that Vicor is liable for the sale of its bus converters both inside and outside the United States.

SynQor alleges that Vicor’s infringement has been willful. SynQor seeks damages in the form of a reasonable royalty to compensate it for the alleged infringement.

Vicor denies SynQor’s assertions of infringement. Vicor contends that it has not induced or contributed to the infringement of the SynQor patents by supplying bus converters to its customers. Vicor denies that its bus converters satisfy one or more elements of the asserted claims. Vicor further denies that it has intentionally induced infringement of the asserted claims of the

patents-in-suit. Vicor also denies that it has intentionally contributed to infringement of the asserted claims of the patents-in-suit. Vicor further denies that SynQor is entitled to any damages.

Vicor further alleges that the asserted claim of the '190 patent is invalid because it is anticipated by the prior art and/or because it would have been obvious to a person of ordinary skill in the field as of January 24, 1997. Vicor does not, however, contend that the asserted claims of the '702 patent are invalid.

Your job will be to decide whether the asserted claims of the SynQor patents have been infringed and whether the asserted claim of the '190 patent is invalid. If you decide that the asserted claims of the '702 patent are not infringed, and that the asserted claim of the '190 patent is either not infringed or invalid, then you do not need to consider damages. If you decide that any asserted claim of the '702 patent infringed, or that the asserted claim of the '190 patent is infringed and not invalid, you will then need to decide the money damages to be awarded to SynQor to compensate it for the infringement, if any.

B. Stipulated Facts

Before this trial started, the parties stipulated or agreed that certain facts are true. These facts are as follows:

1. Subject matter jurisdiction is proper in this Court.
2. The parties do not contest that the Court has personal jurisdiction over the parties for the purposes of this litigation.
3. The parties agree that venue is proper for this litigation in the United States District Court for the Eastern District of Texas, Marshall Division.
4. SynQor owns the two patents-in-suit: the '190 patent and the '702 patent. Trial exhibits PTX0001 and PTX0004 are accurate copies of the patents-in-suit.
5. SynQor previously sued 11 of its competitors for infringing, among others, its '190

and '702 patents. The parties have referred to this previous case as SynQor I or the '497 case.

6. This previous case went to trial in December 2010 here in Marshall.
7. The SynQor competitors in the '497 case supplied parts to Vicor's customers, Cisco and Juniper, for use in some of the same Cisco and Juniper products for which Vicor supplies parts, and such products are now at issue in this case.
8. In the '497 case, the jury found that the Defendants each infringed certain claims of the five SynQor patents that were asserted in that case by selling bus converters to their customers, including Cisco and Juniper.
9. Two of the five asserted patents include the '190 and '702 patents, which are also asserted in this case. And, claim 2 of the '190 patent was specifically asserted in the '497 case, as were claims dependent on claim 55 of the '702 patent.
10. The jury awarded SynQor damages and lost profits, and the Court entered a permanent injunction.
11. All of Vicor's accused bus converters are manufactured in the U.S.;
12. SynQor and Vicor stipulated, for purposes of this case, as to the public availability of certain prior art references.
13. Pressman, Switching and Linear Power Supply, Power Converter Design, Hayden Book Company, Inc., 1977 was publicly available prior to January 23, 1996.
14. U.S. Patent No. 5,377,090 (Steigerwald '090) has a priority date of January 19, 1993.
15. U.S. Patent No. 5,274,539 (Steigerwald '539) has a priority date of December 4, 1991.
16. Joint Stipulation Regarding Representative Products (PTX2590; DTX1444).
17. Joint Stipulation regarding Undisputed Issues Pertaining to Accused Vicor Bus

Converters (PTX2591; DTX1445).

18. Joint Stipulation Regarding Undisputed Claim Laminations Met by Accused Products and Claim Limitations Disclosed in the Prior Art (PTX2592; DTX1446).

C. Claim interpretation

Before you can decide many of the issues in this case, including infringement and invalidity, you will need to understand the role of patent “claims.” The claims of a patent are the numbered sentences at the end of the patent. The SynQor patents are in your juror notebooks. The claims describe the invention what the patent owner owns, and what the patent owner may prevent others from doing. The figures and text in the rest of a patent provide a description and examples of the invention and provide a context for the claims, but the claims define how broad or narrow a patent’s coverage is. Each claim is effectively treated as if it were a separate patent, and each claim may cover more or less than another claim. Therefore, what a patent covers depends upon what each of its claims covers.

Claims are usually divided into parts or steps called “limitations,” “requirements,” or “elements.” For example, a claim that covers the invention of a table may recite the tabletop, four legs, and the glue that secures the legs to the tabletop. In this example, the tabletop, legs, and glue are each a separate limitation of the claim. The claims at issue here are product claims.

In deciding whether an accused product infringes a patent claim or whether a claim is invalid, the first step is to understand the meaning of the words used in the claims. The meaning of the words in the claims is the same for both the infringement and the invalidity determinations. But the standard of proof is different, because the clear and convincing evidence standard for invalidity requires greater proof than is necessary for the preponderance of the evidence standard that applies to infringement.

It is my job as judge to determine what the claims mean and to instruct you about that meaning. You must accept the meanings I give you and use those meanings when you decide whether each claim is infringed, and whether each claim is invalid. I have interpreted the meaning of some of the language in the claims involved in this case. My interpretation of those claims appears in your juror notebooks and also in Appendix A to these instructions. The claim language I have not interpreted for you is to be given its ordinary and accustomed meaning as understood by one of ordinary skill in the field of the invention. I will instruct you on what a person of ordinary skill in the art is in more detail shortly.

1. Open-Ended or “Comprising” Claims

The beginning, or preamble, of all of the asserted claims of the SynQor patents use the word “comprising.” “Comprising” means “including” or “containing, but not limited to.” Thus, if you decide that an accused product includes all the requirements (also called limitations or elements) in that claim, the claim is infringed. This is true even if the accused product includes components in addition to those requirements.

For example, a claim to a table comprising a tabletop, legs, and glue would be infringed by a table that includes a tabletop, legs, and glue, even if the table also includes wheels on the table’s legs.

2. Independent and Dependent Claims

Patent claims may exist in two forms, referred to as independent claims and dependent claims. An independent claim sets forth all of the requirements that must be met in order to be covered by that claim and does not refer to any other claim of the patent. Thus, it is not necessary to look at any other claim to determine what an independent claim covers. For example, claim 55 of the ’702 patent is an independent claim.

A dependent claim does not itself recite all of the requirements of the claim but refers to at least one other claim in the patent for some of its requirements. A dependent claim includes all the requirements of the other claim to which it refers, as well as the requirements recited in the dependent claim. In this way, the claim “depends” on another claim. To determine what a dependent claim covers, it is necessary to look both at the dependent claim and the other claim or claims to which it refers. For example, claim 2 of the ’190 patent is a dependent claim. It includes its requirements, plus the requirements of claim 1 from which it depends. And claim 67 of the ’702 patent is also a dependent claim. It includes the requirements of claim 55 along with the additional requirements of claim 67.

D. Level of Ordinary Skill

Several times in these instructions I will refer to a person of ordinary skill in the art or a person of ordinary skill in the field of the invention. It is up to you to decide the level of ordinary skill in the field of the invention. Someone with “ordinary skill in the art” is presumed to know all of the pertinent prior art, not just what the inventor may have known. You should consider all of the evidence introduced at trial in making this decision, including:

1. the levels of education and experience of persons working in the field;
2. the types of problems encountered in the field; and
3. the sophistication of the technology.

E. Glossary of Patent Terms

A glossary of general patent terms is contained in Appendix B of these instructions.

F. Infringement

I will now instruct you as to the rules you must follow when deciding whether SynQor has proven that Vicor induced or contributed to the infringement of any of the asserted claims of the asserted patents. Remember that SynQor bears the burden of proving by a preponderance of the

evidence that Vicor infringes each of the asserted claims by actively inducing customers to infringe and/or knowingly contributing to their infringement. In other words, SynQor must prove that it is more likely than not that Vicor induced or contributed to the infringement of each of the asserted claims of the asserted patents.

It is your job to determine, as to each of the asserted claims, whether SynQor has proven by a preponderance of the evidence that Vicor has separately infringed each of those claims. Infringement is assessed on a claim-by-claim basis. Therefore, there may be infringement as to one claim but no infringement as to another. In determining whether an accused product meets the limitations of the claims, you should compare the accused product to the asserted claims and not to any SynQor product. The comparison of the accused products to SynQor products or to Vicor patents may, however, be relevant to issues concerning Vicor's intent to infringe.

During this trial, you heard reference to patents that Vicor has received. A product may be covered by more than one patent. But the existence of an accused infringer's own patent does not constitute a defense to infringement of someone else's patent even if the product is covered by the accused infringer's patent.

Once the patent is issued, the owner of a patent has a right to exclude others from making, using, offering to sell, or selling the patented invention throughout the United States or importing the patented invention into the United States for a term of 20 years. Infringement occurs when a person, without the patent owner's permission, makes, uses, offers to sell, or sells the patented invention anywhere in the United States or imports the patented invention into the United States while the patent is in force.

Vicor is accused of induced infringement, contributory infringement, and infringement through the supply of components from the United States for combination abroad. SynQor also

alleges that Vicor is liable for willful infringement. Inducement and contributory infringement are referred to as indirect infringement. To prove indirect infringement, SynQor must prove that Vicor's indirect infringement caused direct infringement by one or more of its customers. Direct infringement can be found either literally or under the doctrine of equivalents.

Let me start by explaining direct infringement in a little more detail.

1. Direct Infringement – Literal Infringement

To show direct infringement of a claim, SynQor must prove by a preponderance of the evidence that the customers' products includes every requirement in that claim, literally or equivalently, as I will explain to you shortly. In order to prove direct infringement, SynQor must prove by a preponderance of the evidence, i.e., that it is more likely than not, that the alleged infringer made, used, sold, offered for sale within the United States, or imported into the United States a product that meets all of the requirements of a claim. You must compare the accused product with each and every one of the requirements of a claim to determine whether all of the requirements are met. You must determine, separately for each asserted claim, whether or not there is infringement.

A claim requirement is literally present if it exists in the accused product just as it is described in the claim language, either as I have explained that language to you, or, if I did not explain it, as it would be understood by one of ordinary skill in the art.

If an accused product omits a claim requirement, then you must find that the claim is not literally infringed as to that product. You must consider each asserted claim of the SynQor patents separately. If you find that each and every requirement of a claim is present, then the claim is infringed, even if the accused product may be more or less efficient or may include additional features or functions not found in the claims.

Whether Vicor's customer knew that its product infringed does not matter for your consideration of direct infringement. The customer may directly infringe a patent even if it believed in good faith that what it was doing was not an infringement of any patent, and even if it did not know about the patent.

2. *Direct Infringement "Under The Doctrine Of Equivalents"*

If a company makes, uses, sells, offers to sell within, or imports into the United States a product that does not meet all of the requirements of a claim and thus does not literally infringe that claim, there can still be direct infringement if that product satisfies that claim "under the doctrine of equivalents."

Under the doctrine of equivalents, a product infringes a claim if the accused product contains elements corresponding to each and every requirement of the claim that is equivalent to, even though not literally met by, the accused product. You may find that an element is equivalent to a requirement of a claim that is not met literally if a person having ordinary skill in the field of technology of the patent would have considered the differences between them to be "insubstantial" or would have found that the structure: (1) performs substantially the same function and (2) works in substantially the same way (3) to achieve substantially the same result as the requirement of the claim. In order to prove infringement by "equivalents," SynQor must prove the equivalency of the structure to a claim element by a preponderance of the evidence.

3. *Induced Infringement*

SynQor alleges that Vicor is liable for infringement by inducing others to directly infringe the asserted claims of the SynQor patents.

The patent laws provide that one who actively induces infringement of a patent shall be liable as an infringer.

As with direct infringement, you must determine whether there has been induced infringement on a claim-by-claim basis.

Vicor is liable for induced infringement of a claim of one of the asserted patents only if SynQor proves by a preponderance of the evidence that:

1. that the acts are actually carried out by another, such as Vicor's customers, and that the other directly infringes that claim within the United States;
2. Vicor took action during the time the patent was in force intending to cause the infringing acts by another; and
3. Vicor was aware of the patent and knew that the acts, if taken, would constitute infringement of that patent or Vicor believed that there was a high probability that the actions taken by others infringed the patent-in-suit and took deliberate steps to avoid learning of that infringement.

The mere knowledge of possible infringement by others does not amount to inducement. Rather, SynQor must prove that Vicor acted with specific intent to cause acts that constitute direct infringement and must have known that its actions would cause the direct infringement, or believed there was a high probability that its actions would cause the direct infringement but deliberately avoided confirming that belief. Vicor's culpability is measured against its knowledge and intent at the time of its conduct. When considering whether Vicor knew or was willfully blind to a high probability that the induced actions would constitute infringement, you should consider the totality of the circumstances, including whether Vicor is relying on the advice of a competent lawyer.

4. Contributory Infringement

SynQor contends that Vicor is liable for contributory infringement by contributing to the direct infringement of the SynQor patents by certain customers of Vicor. As with direct infringement, you must determine contributory infringement on a claim-by-claim basis. Vicor is liable for contributory infringement of a claim if SynQor proves by a preponderance of the evidence that:

(1) Vicor sold to a customer within the United States, offered to sell within the United States, or imported into the United States a component of a patented product during the time the patents were in force;

(2) the component had no substantial, noninfringing use;

(3) the component constituted a material part of the invention;

(4) Vicor was aware of the SynQor patents and knew that the product for which the component had no substantial, noninfringing use was covered by a claim of the patents, or believed there was a high probability that the product for which the component had no substantial, noninfringing use was covered by a claim of the patents and took deliberate actions to avoid learning of the infringement; and

(5) the product directly infringed the claim.

Vicor's culpability is measured against its knowledge and intent at the time of its conduct. The mere knowledge of possible infringement by others does not amount to contributory infringement. Rather, SynQor must prove that Vicor knew that the products infringed a claim of SynQor's patents, or subjectively believed there was a high probability that they infringed a claim of SynQor's patents and took deliberate actions to avoid confirming that belief. When considering whether Vicor knew that the products infringe a claim of SynQor's patents, or believed there was a high probability that the products infringe a claim of SynQor's patents and deliberately avoided confirming that belief, you should consider the totality of the circumstances, including whether Vicor is relying on the advice of a competent lawyer.

In order to prove contributory infringement, SynQor must prove that each of the above requirements is met. This proof of each requirement must be by a preponderance of the evidence, i.e., that it is more likely than not that each of the above requirements is met.

5. *Infringement Through The Supply Of Bus Converters From The United States For Combination Abroad*

Vicor is liable for Section 271(f)(2) infringement of an asserted claim of a SynQor patent, through the supply of bus converters from the United States for combination abroad, if SynQor proves by a preponderance of the evidence that:

- (1) Vicor was aware of the SynQor patents;
- (2) Vicor supplied a component, or caused a component to be supplied, from the United States to a place outside of the United States;
- (3) the component had no substantial, noninfringing use;
- (4) Vicor knew the component was made or adapted for use in a product that would directly infringe the SynQor patents if it were used in the United States, or believed that there was a high probability that it would infringe and took deliberate actions to avoid learning of that infringement; and
- (5) Vicor intended for the component to be combined into the product, outside of the United States, in a manner that would directly infringe the SynQor patents if the combination had been made in the United States.

6. *Willful Infringement*

SynQor contends that Vicor willfully infringed the asserted claims of the SynQor patents. Vicor denies that it willfully infringed any of the asserted claims. If you find that Vicor induces infringement of, contributes to infringement of, or infringes through the supply of bus converters from the United States for combination abroad, at least one asserted claim of the SynQor patents, then you must decide whether that infringement was willful.

Willfulness requires SynQor to prove by a preponderance of the evidence that Vicor knew of the SynQor patent and that the infringement by Vicor was intentional. You may not determine

that the infringement was willful just because Vicor was aware of the patent and infringed it. Instead, you must also find that Vicor deliberately infringed the patent.

To determine whether Vicor acted willfully, consider all facts and assess Vicor's knowledge at the time of the challenged conduct. Facts that may be considered include, but are not limited to:

1. Whether or not Vicor acted consistently with the standards of behavior for its industry;
2. Whether or not Vicor intentionally copied a product of SynQor that is covered by the SynQor patent;
3. Whether or not Vicor reasonably believed it did not infringe or that the SynQor patent was invalid;
4. Whether or not Vicor made a good-faith effort to avoid infringing the SynQor patent, for example, whether Vicor attempted to design around the SynQor patent; and
5. Whether or not Vicor tried to cover up its infringement.

In considering under the totality of the circumstances whether Vicor acted willfully, you may consider as one factor the lack of evidence that Vicor obtained a competent legal opinion. However, you may not assume that merely because Vicor did not obtain a legal opinion, the opinion would have been unfavorable. The absence of a lawyer's opinion, by itself, is insufficient to support a finding of willfulness.

G. Invalidity

Patent invalidity is a defense to patent infringement. Even though the PTO examiner has approved the claims of a patent, you have the ultimate responsibility for deciding whether the claims are valid.

I will now instruct you on the invalidity issues you should consider. As you consider these issues, remember that Vicor bears the burden of proving invalidity by clear and convincing evidence. In other words, Vicor must prove that it is highly probable that the claims are invalid.

The issuance of a patent by the PTO provides a presumption that the patent is valid. From the issuance of the patent, it is presumed that a claimed invention is “novel” (new), “useful,” “not obvious,” and satisfies the other legal requirements for a valid U.S. patent. Each claim of a patent is presumed valid, regardless of the validity of the other claims.

The presumption of validity remains intact throughout this litigation, and the burden of proof remains on Vicor to prove invalidity by clear and convincing evidence.

The presumption of validity is not an additional hurdle to be cleared for finding invalidity. By applying the clear and convincing standard, you are already accounting for the presumption of validity.

1. Prior Art

These instructions have sometimes referenced “prior art.” Prior art means technology and information that was publicly available before the date of the invention. (See also the Court’s definition in Appendix B.) As I noted earlier, it has already been determined that the asserted claims of the ’702 patent are valid over the prior art.

2. Obviousness

In this case, Vicor contends that claim 2 of the ’190 patent is invalid as obvious. Vicor does not contend that the asserted claims of the ’702 patent are invalid as obvious. For claim 2 of the ’190 patent, Vicor contends that this claim is rendered obvious by the following combination of references:

1. Steigerwald ’090; Steigerwald ’539; Pressman

A patent claim is invalid if the claimed invention would have been obvious to a person of ordinary skill in the field of the invention at the time the invention was made. This means that even if all the requirements of the claim cannot be found in a single prior art reference that would

anticipate the claim, a person of ordinary skill in the field of the invention who knew about all of the prior art would have come up with the claimed invention.

But a patent claim composed of several requirements is not proved obvious simply by demonstrating that each of its requirements was independently known in the prior art. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered and claimed discoveries, almost of necessity, will be combinations of what, in some sense, is already known. Accordingly, you may evaluate whether there was some teaching, suggestion, or motivation to arrive at the claimed invention before the time of the claimed invention, although proof of this is not a requirement to prove obviousness.

Teachings, suggestions, and motivations may be found in written references including the prior art itself. However, teachings, suggestions, and motivations may also be found within the knowledge of a person with ordinary skill in the field of the invention, including inferences and creative steps that a person of ordinary skill in the field would employ. Additionally, teachings, suggestions, and motivations may be found in the nature of the problem solved by the claimed invention, or any need or problem known in the field of the invention at the time of and addressed by the invention.

Therefore, in evaluating whether such a claim would have been obvious, you should consider a variety of factors:

1. whether Vicor has identified a reason that would have prompted a person of ordinary skill in the field of the invention to combine the requirements or concepts from the prior art in the same way as in the claimed invention. There is no single way to define the line between true inventiveness on one hand (which is patentable) and the application of common sense and ordinary skill to solve a problem on the other hand (which is not patentable). For example, market forces may be what produced a change, rather than true inventiveness;
2. whether the claimed invention applies a known technique that had been used to improve a similar device or system in a similar way; and

3. whether the claimed invention would have been obvious to try, meaning that the claimed innovation was one of a relatively small number of possible approaches to the problem with a reasonable expectation of success by those of ordinary skill in the art in the field of the invention.

But you must be careful not to determine obviousness using hindsight; many true inventions can seem obvious after the fact. You should put yourself in the position of a person of ordinary skill in the field of the invention at the time the claimed invention was made, and you should not consider what is known today or what is learned from the teaching of the patent.

The ultimate conclusion of whether a claim is obvious should be based on your determination of several factual issues:

1. you must decide the level of ordinary skill in the field of the invention that someone would have had at the time the claimed invention was made;
2. you must decide the scope and content of the prior art. In determining the scope and content of the prior art, you must decide whether a reference is pertinent, or analogous, to the claimed invention. Pertinent, or analogous, prior art includes prior art in the same field as the claimed invention, regardless of the problems addressed by the reference, and prior art from different fields reasonably pertinent to the particular problem with which the claimed invention is concerned. Remember that prior art is not limited to patents and published materials, but includes general knowledge that would have been available to one of ordinary skill in the field of the invention; and
3. you must decide what difference, if any, existed between the claimed invention and the prior art.

Finally, you should consider any of the following factors that you find have been shown by the evidence:

A. *Factors tending to show nonobviousness:*

1. commercial success of a product due to the merits of the claimed invention;
2. a long-felt, but unsolved, need for the solution provided by the claimed invention;
3. unsuccessful attempts by others to find the solution provided by the claimed invention;
4. copying of the claimed invention by others;

5. unexpected and superior results from the claimed inventions;
6. acceptance by others of the claimed invention as shown by praise from others in the field of the invention or from the licensing of the claimed invention;
7. disclosures in the prior art that criticize, discredit, or otherwise discourage the claimed invention and would therefore tend to show that the invention was not obvious;
8. whether the inventor proceeded contrary to accepted wisdom in the field; and
9. other evidence tending to show nonobviousness.

B. Factors tending to show obviousness:

1. independent invention of the claimed invention by others before or at about the same time that the named inventors thought of it; and
2. other evidence tending to show obviousness.

The presence of any of the above factors that tend to show nonobviousness may be considered by you as an indication that the claimed invention would not have been obvious at the time the claimed invention was made. These factors can be the most probative evidence of nonobviousness, and should be used to avoid applying hindsight to the obviousness determination. You must consider any factors that tend to show nonobviousness before reaching an obviousness determination. Conversely, the presence of any of the above factors that tend to show obviousness may be considered by you as an indication that the claimed invention would have been obvious at such time. Although you should consider any evidence of these factors, their relevance and importance to your decision on whether the claimed invention would have been obvious is up to you.

Vicor must prove by clear and convincing evidence that a claimed invention was obvious. If you find that a claimed invention was obvious as explained above, you must find that claim invalid.

Obviousness – Level of Ordinary Skill / Scope of the Prior Art

The parties disagree about whether the prior art references I have listed are pertinent or analogous and therefore may be considered as prior art used to decide the validity of the asserted claims. In reaching your conclusion about whether or not any of the asserted claims of the SynQor patents would have been obvious at the time the invention was made, you should consider any difference or differences between the references presented by Vicor and the claimed requirements.

In considering whether the claimed invention was obvious, you must first determine the scope and content of the prior art for deciding whether the invention was obvious. The scope and content of prior art includes at least prior art in the same field as the claimed invention and prior art from different fields that a person of ordinary skill in the art would have considered when trying to solve the problem that is addressed by the invention. Furthermore, prior art is not limited to patents and published materials, but it also includes the general knowledge that would have been available to one of ordinary skill in the field of the invention.

In deciding what the level of ordinary skill in the field of the claimed invention is, you should consider all the evidence introduced at trial, including but not limited to: (1) the levels of education and experience of the inventor and other persons actively working in the field; (2) the types of problems encountered in the field; (3) prior art solutions to those problems; (4) the rapidity with which innovations are made; and (5) the sophistication of the technology.

H. Patent Damages

I will now instruct you on patent damages. If you find that Vicor has infringed one or more valid asserted claims of the SynQor patents, you must determine the amount of money damages, if any, to which SynQor is entitled. By instructing you on damages, I do not suggest that one or the other party should prevail. These instructions are provided to guide you on the calculation of damages in the event that you find infringement of a valid patent claim. If you find that Vicor has

not infringed any valid claim of the patents-in-suit, then SynQor is not entitled to any patent damages.

The amount of damages, if any, must be adequate to compensate SynQor for the any infringement you have found. If you find Vicor has infringed, in no event may the damages award be less than a “reasonable royalty.” I will explain the term “reasonable royalty” in more detail shortly.

Your damages determination must not include additional sums to punish Vicor or to set an example. You may award compensatory damages only for the loss that SynQor proves was more likely than not caused by Vicor’s infringement.

As I mentioned earlier, any finding of willful infringement is not relevant to your assessment of damages.

1. Burden of Proof

Where the parties dispute a matter concerning patent damages, it is SynQor’s burden to prove by a preponderance of the evidence that its version is correct. SynQor must prove the amount of damages with reasonable certainty, but need not prove the amount of damages with mathematical precision. However, SynQor is not entitled to damages that are speculative, that are merely possible, or damages that are based on guesswork.

2. When Damages Begin

In determining the amount of damages, you must determine when the damages began to accrue. The calculation of damages should begin as of the date the actionable infringement began.

3. Lost Profits

To be clear, lost profits and reasonable royalty are alternative measures of damages under the law, and SynQor is not seeking a lost profits calculation of damages. Although SynQor’s anticipated lost profits may be considered to determine a reasonable royalty under several of the

“reasonable royalty factors” described below, the law does not authorize the direct setting of the reasonable royalty in the amount of SynQor’s lost profits.

4. *Reasonable Royalty — Hypothetical Negotiation*

A royalty is a payment made to SynQor in exchange for rights to make, use, sell, offer for sale, or import the claimed invention. A reasonable royalty is the payment that would have resulted from a negotiation between SynQor and Vicor taking place just before the time when the infringement first began. In considering the nature of this “hypothetical negotiation,” the focus is on what the expectations of SynQor and Vicor would have been had they entered into an agreement at that time and acted reasonably in their negotiations. You must assume that both parties believed the patent was valid and infringed. You must also assume that SynQor and Vicor were willing to enter into an agreement; your role is to determine what that agreement would have been. The test for damages is what royalty would have resulted from the hypothetical negotiation and not simply what either party would have preferred.

The date of the hypothetical negotiation between SynQor and Vicor is the date the alleged infringement first began. The parties agree that the date of the hypothetical negotiation is July 2006. Evidence of things that happened after the infringement first began can be considered in evaluating the reasonable royalty only to the extent that the evidence aids in assessing what royalty would have resulted from a hypothetical negotiation. Although evidence of the actual profits an alleged infringer made may be used to determine the anticipated profits at the time of the hypothetical negotiation, the royalty may not be limited or increased based on the actual profits the alleged infringer made.

5. *Reasonable Royalty – Factors*

In deciding what is a reasonable royalty that would have resulted from the hypothetical negotiation, you may consider the factors that the patent owner (SynQor) and the alleged infringer

(Vicor) would consider in setting the amount the alleged infringer should pay. I will list for you a number of factors you may consider. They are as follows:

(1) The royalties received by SynQor for the licensing of the asserted patents, proving or tending to prove an established royalty.

(2) The rates paid by Vicor for the use of other patents comparable to the patents-in-suit.

(3) The nature and scope of the license, as exclusive or nonexclusive, or as restricted or nonrestricted in terms of territory or with respect to whom the manufactured product may be sold.

(4) SynQor's established policy and marketing program to maintain its patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.

(5) The commercial relationship between SynQor and Vicor, such as whether they are competitors in the same territory in the same line of business, or whether they are inventor and promoter.

(6) The effect of selling the patented specialty in promoting sales of other products of Vicor, the existing value of the invention to the licensor as a generator of sales of his nonpatented items, and the extent of such derivative or convoyed sales.

(7) The duration of the patents and the term of the license.

(8) The established profitability of the product made under the patents, its commercial success, and its current popularity.

(9) The utility and advantages of the patented property over the old modes or devices, if any, that had been used for working out similar results.

(10) The nature of the patented invention, the character of the commercial embodiment of it as owned and produced by SynQor, and the benefits to those who have used the invention.

(11) The extent to which the infringer has made use of the invention and any evidence probative of the value of that use.

(12) The portion of the profit or of the selling price that may be customary in the particular business or in comparable business to allow for the use of the invention or analogous inventions.

(13) The portion of the realizable profits that should be credited to the invention as distinguished from nonpatented elements, the manufacturing process, business risks, or significant features or improvements added by the infringer.

(14) The opinion and testimony of qualified experts.

(15) The amount that a licensor (such as SynQor) and a licensee (such as Vicor) would have agreed upon (at the time the infringement began) if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

No one factor is dispositive, and you can and should consider the evidence that has been presented to you in this case on each of these factors. You may also consider any other factors which in your mind would have increased or decreased the royalty the infringer would have been willing to pay and the patent holder would have been willing to accept, acting as normally prudent business people. The final factor establishes the framework which you should use in determining a reasonable royalty, that is, the payment that would have resulted from a negotiation between the patent holder and the infringer taking place at a time prior to when the infringement began. In determining a reasonable royalty, you may also consider whether or not a commercially acceptable

non-infringing alternative was available to Vicor at the time of the hypothetical negotiation and whether that would have affected the reasonable royalty the parties would have agreed upon.

6. *Reasonable Royalty – License Comparability*

When determining a reasonable royalty, you may consider evidence concerning the amounts that other parties have paid for rights to the patent in question or for rights to similar technologies. A license agreement need not be perfectly comparable to the hypothetical license that would have been negotiated between SynQor and Vicor in order for you to consider it. However, if you choose to rely upon evidence from any license agreements, you must account for any differences between those licenses and the hypothetically negotiated license between SynQor and Vicor when you make your reasonable royalty determination, including whether the license contained any value related to a release of liability, the date when the license was entered, the financial or economic conditions of the parties at the time the parties entered into the license, the number of patents involved in the license, and the extent to which litigation may have affected the license.

7. *Reasonable Royalty – Apportionment*

The law requires that any royalty awarded to SynQor correspond to the value of the alleged invention within the infringing product as distinct from other unpatented features of the infringing product. This is particularly true where the infringing product has multiple features and multiple components not covered by the patent or where the accused product works in conjunction with other non-patented components. If unpatented features contribute to an infringing product, you must apportion that value to exclude any value attributable to unpatented features. You must determine an appropriate royalty rate and an appropriate royalty base that reflect the value attributable to the patented invention alone.

I. Counterclaims

During this trial, you heard evidence relating to Vicor's counterclaims for unfair competition under Massachusetts General Law Chapter 93A and tortious interference with prospective economic advantage. The Court has resolved these claims in SynQor's favor. You should, therefore, disregard any evidence solely related to these counterclaims in rendering your verdict.

III. DUTY TO DELIBERATE

It is your sworn duty as jurors to discuss the case with one another in an effort to reach agreement if you can do so. Each of you must decide the case for yourself, but only after full consideration of the evidence with the other members of the jury. While you are discussing the case, do not hesitate to re-examine your own opinion and change your mind if you become convinced that you are wrong. However, do not give up your honest beliefs solely because the others think differently, or merely to finish the case.

Remember that in a very real way you are the judges—judges of the facts. Your only interest is to seek the truth from the evidence in the case.

When you retire to the jury room to deliberate on your verdict, you may take this charge with you. If you request an exhibit, it will be provided to you. Select your Foreperson, and conduct your deliberations. If you recess during your deliberations, follow all of the instructions that the Court has given you about your conduct during the trial. After you have reached your unanimous verdict, your Foreperson is to fill in on the form your answers to the questions. Do not reveal your answers until such time as you are discharged, unless otherwise directed by me. You must never disclose to anyone, not even to me, your numerical division on any question.

If you want to communicate with me at any time, please give a written message or question to the bailiff, who will bring it to me. I will then respond as promptly as possible either in writing

or by having you brought into the courtroom so that I can address you orally. I will always first disclose to the attorneys your question and my response before I answer your question.

After you have reached a verdict, you are not required to talk with anyone about the case unless the Court orders otherwise. You may now retire to the jury room to conduct your deliberations.

Appendix A

Meaning of Claim Terms

Claim Term(s)	Construction
“isolation” / “isolating” / “isolated”	“the absence of an electric path permitting the flow of DC current (other than a de minimus amount) between an input and an output of a particular stage, component, or circuit”
“regulated DC output”	“a DC output that is controlled towards a predefined value”
“regulating”	“controlling an output towards a predefined value”
“regulation”	“the act of controlling an output towards a predefined value”
“a non-regulated, isolated DC output”	“an isolated DC output that is not controlled towards a predefined value”
“plural non-regulated, isolated DC outputs”	“more than one isolated DC output that is not controlled towards a predefined value”
“a non-regulated, isolated DC output having a non-regulated voltage”	“a non-regulated, isolated DC output that has a voltage that is not controlled to a predefined value”
“non-regulating”	“not controlling an output towards a predefined value”
“connected”	“electrically connected, directly or indirectly”
“each controlled rectifier being turned on and off in synchronization with the voltage waveform across a primary winding”	<p>“each controlled rectifier being turned from on to off and from off to on at some point in the course of the change of the voltage waveform across a primary winding”</p> <p>The claimed “turned on and off” may be shown by either a process or the instant the controlled rectifiers (“CRs”) change state.</p>

	<p>The start and stop of the voltage transition is part of the “course of the change of the voltage waveform,” while the moments before or after the start or stop are not.</p> <p>The CRs are “on” when their gate voltage crosses the threshold voltage.</p>
“transition times”	“time periods during which a change of a voltage waveform occurs across a primary winding”
“transition times which are short relative to the on-state and off-state times of the controlled rectifiers”	“the sum of all transition times totals less than 20% of the overall on-state and off-state times of the controlled rectifiers”
“down converter”	“a converter where the output voltage is lower than the input voltage”
“multiple non-regulating isolating step down converters providing plural non-regulated, isolated DC outputs, plural of the non-isolating down-converter switching regulators receiving power from one of the non-regulated, isolated DC outputs”	“two or more non-regulating isolating step down converters, each providing a non-regulated, isolated DC output, wherein two or more of the non-isolating down-converter switching regulators receives power from one of the non-regulated, isolated DC outputs”
“transformer that is not driven into saturation”	“transformer that is connected in a manner such that the transformer’s magnetic flux density level is less than its saturation flux density level”
“fixed duty cycle”	“a duty cycle that is not varied to control the output voltage towards a predefined value”
“a non-regulating isolating step-down converter through which power from the DC input flows first before flowing through any regulation stage”	Plain and ordinary meaning. No further construction necessary.

Appendix B

Glossary of General Patent Terms

- **Application** – The initial papers filed by the applicant with the United States Patent and Trademark Office (also called the Patent Office or PTO).
- **Claims** – The numbered sentences appearing at the end of the patent that define the invention. The words of the claims define the scope of the patent holder’s exclusive rights during the life of the patent. Claims can be independent or dependent. An independent claim is self-contained. A dependent claim refers back to an earlier claim and includes the requirements of the earlier claim.
- **File wrapper** – Another term for the “prosecution history.”
- **Filing Date:** Date a patent application, with all the required sections, has been submitted to the U.S. Patent and Trademark Office.
- **License** – Permission to use or make the patented invention or perform any of the other exclusive rights granted by the patent, which may be granted by a patent holder (or a prior licensee) in exchange for a fee called a “royalty” or other types of payment.
- **Office action** – Communication from the patent examiner regarding the patent application.
- **Patent examiners** – Personnel employed by the PTO who review patent applications, each in a specific technical area, to determine whether the claims of a patent application are patentable.
- **Prior art** – Prior art is not art as one might generally understand the word. Rather, prior art is a technical term relating to patents. In general, it includes things that existed before the claimed invention and might typically be a patent or a printed publication. (See more detailed explanation on pages 25–26).
- **Prosecution history** – The written record of proceedings between the applicant and the PTO, including the original patent application and later communications.
- **Specification** – The information that appears in the patent and concludes with one or more claims. The specification includes the written text and the drawings. In the specification, the inventor should provide a description telling what the invention is, how it works, how to make and use it so as to enable others skilled in the art to do so.
- **Ordinary skill in the art** – The level of experience, education, or training that those individuals who worked in the area of the invention ordinarily possessed at the time of the effective filing date of the patent application. (See more detailed explanation on page 25–26).